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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/710,390	11/09/2000	HORST GRAFE	DT-3734	5453
30377	7590	06/08/2005	EXAMINER	
DAVID TOREN, ESQ. SIDLEY, AUSTIN, BROWN & WOOD, LLP 787 SEVENTH AVENUE NEW YORK, NY 10019-6018			PRONE, JASON D	
			ART UNIT	PAPER NUMBER
			3724	

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/710,390

Applicant(s)

GRAFE ET AL.

Examiner

Jason Prone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

### A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 April 1005.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 23 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 23 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 11 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sieger (2,076,969) in view of Sieger (2,588,581), Martin (3,037,396), and Sato et al. (5,207,138). '969 discloses the invention including an upper blade support formed as a beam bridge having a diameter (4<sup>c</sup>) carrying a first blade (4<sup>a</sup>) and having a shaft stub on each of opposite longitudinal sides (Fig. 2), a lower blade drum having a diameter (4<sup>d</sup>) and carrying a second blade (4<sup>b</sup>), a means for permanently rotationally connecting the beam bridge with the lower drum (Pg. 1 Column 2 Lines 48-51) and having two synchronization tooth gears fixedly connected with the beam bridge and the blade drum, respectively, and having different pitch circle diameters corresponding roughly to diameters of respective blades (Fig. 1). '969 further discloses the first and second blades cooperating with each other in a predetermined cutting position of the beam bridge and the lower blade drum for cutting the rolled strip (Figs. 5-7), roller means for supporting the tensioned strip and providing for lifting of the strip before passing of the second lower blade and for lowering the strip before passing of the first upper blade through the blade gap (Roller means 19 is connected to an adjusting means 23 which is synchronized to move the roller to lift the strip before passing of the lower blade and to

lower the strip before passing of the upper blade {Pg. 2 Column 2 Lines 50-62}. The roller means will accomplish this as the upper blade will passing a cutting zone while the roller is lowered {as shown to be slightly after the position in fig. 1} and will be raised while the lower blade is in a cutting zone {during a cutting action}}, and a number of x-revolutions of the beam bridge corresponds to a number y-revolutions of the blade drum so that the beam bridge and the blade drum are brought into the cutting position after different but finite number of the x-revolutions and y-revolutions of the beam bridge and the blade drum (Figs. 5-7).

However, '969 fails to disclose the upper blade support has a relatively large diameter and the lower blade drum has a comparatively small diameter, two pinch-roller sets located in front of and behind the beam bridge and the blade drum, respectively, for advancing the rolled strip under longitudinal tensioning through a gap between the beam bridge and the blade drum, the tooth gears are substantially backlash-free wherein in order to at least minimize the backlash, the tooth gear associated with the blade drum is divided in two gear portions, and the shear further comprises bolt means for securing the two gear portions in a predetermined angular position with respect to each other.

'581 teaches an upper blade support that has a relatively large diameter (17) and a lower blade drum that has a comparatively small diameter (16). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided '969 with a larger upper blade support and a smaller lower blade drum, as taught by '581, to allow the smaller drum to be placed inside the apparatus, instead of

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the larger drum, because of its smaller size it could be easily replaced due to all the other components of the apparatus than a larger drum that would interfere with these components.

Sato et al. teaches two pinch-roller sets located in front of and behind the beam bridge and the blade drum, respectively, for advancing the rolled strip under longitudinal tensioning through a gap between the beam bridge and the blade drum (89). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided '969 with two pinch-roller sets, as taught by Sato et al., to tension the work piece to facilitate cutting.

Martin teaches that the tooth gears are substantially backlash-free wherein in order to at least minimize the backlash, the tooth gear associated with the blade drum is divided in two gear portions (29 and 30), and the shear further comprises bolt means for securing the two gear portions in a predetermined angular position with respect to each other (37). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided '969 with backlash-free gear portions, as taught by Martin, to provide for a safer cutting apparatus.

### ***Response to Arguments***

3. Applicant's arguments filed 08 April 2005 have been fully considered but they are not persuasive. Sieger ('581) clearly teaches to Sieger ('969) that it is old and well known in the art to incorporate a larger drum (17) above a lower drum (16). Sieger's ('969) statement of "that the lower carrier is so designed that it will only engage the strip during a small portion of its revolution" does not teach away from the modification as

taught by Sieger ('581). The reason the lower carrier engages the strip only during a small portion of its revolution has to do with the way it is rotating with the cam and specific "U-shaped inner hole not the overall size of the drum. A small carrier is capable of performing a function that only allows a small portion of its revolution to engage the strip. Also both the large and the small carriers only engage the strip during a small portion of its revolution. That being said, '969 does not teach against modifying the size of the carriers. Sato et al. clearly teaches pinch rollers (89).

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Prone whose telephone number is 571-272-4513. The examiner can normally be reached on 7:30-5:00, Mon - (every other) Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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JP  
May 31, 2005

A handwritten signature, possibly reading "aes", consisting of a diagonal line with a loop at the top and a horizontal line at the bottom.

Allan N. Shoap  
Supervisory Patent Examiner  
Group 2700